ENGINEERING INSTRUCTION No. 100
26 July 1968

SUBJECT: Construction, Alteration and Repair Programs, South Vietnam.

1. The purpose of this INSTRUCTION is to provide procedures and guidelines for Engineering personnel in the administration and management of the construction, alteration and repair programs (hereafter identified as engineering programs or projects, etc.) undertaken in South Vietnam.

2. RESPONSIBILITIES:

A. Engineering Office, Saigon:

(1) Providing technical guidance and support for all engineering programs in South Vietnam.

(2) The control and reporting of all engineering projects estimated to exceed $1,000.00US.

(3) The administration/coordination of all engineering contracts over $1,000.00US.

(4) The preparation/review and approval of all drawings and specifications for all engineering projects, including renovations to newly leased structures, estimated to exceed $1,000.00US.

STATINTL

(5) All engineering projects within the metropolitan area of Saigon.

B. Field Offices (Region Engineering Offices, [redacted] tenance Office and Building Maintenance Unit, Saigon):

(1) Providing technical guidance and support for all engineering programs within their assigned areas.

(2) The administration of engineering projects over $1,000.00US when assigned by and the reporting of these projects to the Engineering Office, Saigon.

(3) The administration and control of all engineering projects within their areas estimated to cost less than $1,000.00US.

ATTACHMENT A.

(4) The preparation/review and approval of all drawings and specifications for engineering projects, including renovations to newly leased structures, within their areas estimated to cost less than $1,000.COUS.

3. PROJECT SCOPE AND COST ESTIMATES:

A. Project scope shall include the entirety of construction, alteration and repair of approved definitive scope which may comprise one or more complete facilities or combinations thereof, such as roads, buildings, utilities, and related work necessary to obtain a facility complete and ready for use.

(1) The accomplishment of a project in increments to circumvent approval authorities as established in Station Directive 45-16 of 26 June 1968 is specifically prohibited.

B. The cost estimate for a project shall reflect the total cost of the project and shall include all direct and indirect costs as defined below:

(1) Direct Costs - Those items for which funds must be expended to accomplish a project. These items are as follows:

(a) engineering contracts (both construction and design).
(b) temporary hire labor.

(2) Indirect Costs - Those items for which a direct allocation of funds is not required. These items are as follows:

(a) Permanent (In-House) labor.
(b) Reimbursable materials and equipment-those, materials requisitioned from stock, requisitioned through military channels (i.e. - Naval Supply Activity, P.A. & E., Army Sources, etc.) and procured on the local economy.
(c) Non-reimbursable materials and equipment - those materials received free from other activities, and surplus and/or salvage materials.
(d) Special airlift.

4. PROCEDURES AND GUIDELINES:

A. Procedures and guidelines are contained in Appendices A through I of this Instruction.

(1) APPENDIX A - DEFINITIONS

(2) APPENDIX B - OBJECT CLASSIFICATIONS

(3) APPENDIX C - ENGINEERING ASSISTANCE

(4) APPENDIX D - REQUIREMENTS AND GUIDELINES FOR ENGINEERING PROJECTS OVER $1,000.00US.

(5) APPENDIX E - REQUIREMENTS AND GUIDELINES FOR ENGINEERING PROJECTS UNDER $1,000.00US.

(6) APPENDIX F - REQUEST FOR PROJECT APPROVAL FORMAT.

(7) APPENDIX G - WEEKLY PROJECT STATUS REPORT.

(8) APPENDIX H - ENGINEERING PROJECT COMPLETION FORM.

(9) APPENDIX I - FOREIGN REAL PROPERTY REPORT.

APPENDIX A

DEFINITIONS

A. New Construction:

1. The erection or assembly of a facility built, separate and apart from an existing facility, from fabricated, processed, or raw materials or parts.

B. Alteration:

1. The relocation, modification, rearrangement of, or addition to an existing facility which affects its structural strength, stability, safety, capacity, efficiency or usefulness.

C. Repair - For use in this Directive, repair includes repair, renovation and maintenance:

1. The restoration of a facility to a condition substantially equivalent to its original or designed capacity and efficiency, by replacement, overhaul, or reprocessing of constituent parts or materials.

2. The routine work required to keep a facility (plant, building, structure, utility system, or other real property) in such condition that it may be continuously and efficiently utilized for its intended purposes and at its designed capacity.

APPENDIX B

OBJECT CLASSIFICATIONS

1. Object classifications are a means by which Finance can accumulate a record of costs of different types of expenditures. Those object classifications that pertain to the Engineering effort are listed below:

2501	Repair and Maintenance-Fixed Property	Charges in connection with the repair and maintenance of fixed Property such as buildings and grounds.
2540	Miscellaneous Contractual services - Commercial.	Charges which cannot be properly classified under other subobject classes such as contractual services performed by commercial organizations. Supplies and materials furnished by the contractor in connection with such services are included even though they may be separately itemized on the voucher. Charges for services in connection with initial installation of equipment, when performed by vendor, are excluded as this charge is included in 31 subobject series.
3201	Acquisition and/or Construction	Cost of acquisition (including charges for agent's and legal fees and settlement costs related thereto) to lands and buildings. Costs of construction of buildings and structures, including construction on Government-owned, -leased, and-assigned properties.
3202	Improvements	Cost of additions to buildings and structures, and nonstructural improvements of land such as landscaping, fences, sewers, wells, and reservoirs; also fixed equipment (whether an addition or a replacement). This includes improvements to Government-owned, -leased, and -assigned properties.

2. The assignment of Object Classifications for projects over $1,000.00 US will be made by the Engineering Office, Saigon. For projects under $1,000.00 US by the field office concerned.

3. Each project will be assigned only one Object Classification. In projects where more than one classification can be applied, select that Object Classification which covers the greater cost of the project.

APPENDIX C

ENGINEERING ASSISTANCE

1. Each Field Office will normally have a limited capacity in performing In-House survey, design and construction. The Engineering Office, Saigon, has the capability though its staff, A & E contract, construction contractors and In-House construction crews to offer assistance to Field Offices in accomplishment of their assigned tasks. The services that are available upon request are as follows:

A. DESIGN & SURVEY:

(1) ENGINEERING SECTION - DESIGN UNIT:

(a) ELECTRICAL - Three qualified, graduate electrical engineers to conduct electrical field surveys, accomplish electrical design and supervise (on a limited basis) electrical work.

(b) ARCHITECTURAL - A qualified, graduate, architectural engineer, not normally available for travel, to develop architectural design and details.

(c) STRUCTURAL - Two qualified, graduate engineers, one normally available for travel, to develop structural designs and details.

(d) SURVEYING - One qualified, graduate, civil engineer, available for travel, to conduct surveying for topographic details, site planning, etc.

(2) A & E CONTRACT:

STATINTL

The Engineering Section, Saigon, has a contract with [redacted] to provide engineering services when required. Their services are normally utilized to accomplish work beyond the capabilition of or the workload exceeds the capacity of the Engineering Section, Saigon. This firm has a very qualified staff and can normally react immediately to our requirements.

B. CONSTRUCTION:

(1) ENGINEERING SECTION

(a) ELECTRICAL - Two qualified master electricians and, dependent on the Vietnamese draft, two indigenous electrical crews to accomplish electrical renovations and installations.

(b) IN-HOUSE CONSTRUCTION FORCES - The Engineering Section has two compstant crews, composed of the basic trades, who are available to construct either urgent projects or projects in areas where it is difficult to bring in contractors.

(2) GENERAL CONSTRUCTION

(a) CONTRACTS - The Engineering Section has a selected list of contractors who will undertake work almost anywhere in Vietnam.

APPENDIX D

REQUIREMENTS AND GUIDELINES FOR ENGINEERING PROJECTS OVER $1,000.00 US.

1. Inasmuch as the Engineering Section, Saigon, is responsible for the control and reporting of all engineering projects over $1,000.00US, their work can be made much easier and projects can be processed much faster if properly submitted. Field office responsibility is to properly appraise each proposed project, using a sound but economical approach to the solution, and advising the requestor how to properly submit a request for approval. Listed below is the sequence of events that should take place from the concept through the completion of a project.

A. LAND APPROVAL - Although this is the responsibility of the project requestor, it is the field office responsibility to insure that land approval either in the form of a lease or documented permission to use the land has been obtained by the requestor. For projects to be accomplished on land previously acquired insure that the project is within the bounds of the acquired land.

B. PROJECT SURVEY - A complete and detailed survey should be accomplished either by the Field Office or the Engineering Section, Saigon (see APPENDIX C) to insure that the project, when submitted, is complete. Paragraph 3A of the covering instruction must be complied with. Although not applicable to all projects, Attachment 1 to this APPENDIX, should be used, when appropriate, and should be submitted as part of the project request. Submission of this form will greatly assist the Engineering Office in evaluating project requests before being forwarded for approval.

C. PROJECT DESIGN - Accomplishment either by the Field Office or the Engineering Section, Saigon (see APPENDIX C). Design for accomplishment by In-House Forces may be minimal but with adequate detail, either drawn or written, to permit proper evaluation by the Engineering Office, Saigon. Design for accomplishment by contract should be complete with sufficient detail to permit the receipt of competitive bids. Where it is not appropriate to prepare drawings, as is the case in many renovation projects, insure that the written scope for such projects is contained in your estimate to insure proper evaluation by the Engineering Office, Saigon.

D. PROJECT ESTIMATE

(1) Project estimates must indicate the proposed method of accomplishment (i.e. - either by In-House Forces or by contract). Project estimates may be developed either by a known unit price per sf/sm or by a detailed material and labor breakdown. Whichever method is used show sufficient details in the estimate for proper evaluation by the Engineering Office, Saigon.

(a) All estimates should contain a contigency and those for contracts should contain approximately 25% for contractor overhead and profit. Estimates prepared by a unit price method may include these two items in the unit prices; however, these items should be shown as separate line items in estimates prepared by a detailed breakdown.

(b) The revised request for project approval format requires the following estimate breakdown:
(For In-House Projects)

((1)) Direct Costs - Labor (Temporary Hire)_____

((2)) Indirect Costs - Material _____
- Labor (In-House)_____
- Special Air-Lift _____
TOTAL _____

(For Contract)

((1)) Direct Costs - Contract _____

((2)) Indirect Costs - GFM _____
- Special Air-Lift_____

(Funds to be specified in VN$ unless specially to be paid in US$).

(2) Direct and indirect costs are defined in paragraph 3B of the covering instruction. Clarification of several points are covered below:

(a) Permanent (In-House) labor 3B(2)(a) - insure that this figure includes per diem costs.

(b) Non-reimbursable materials - 3B(2)(c) - use approximate costs for actual or similiar materials. The costs used should not be an appraised value but rather approximate costs for this material as if

procured in a new condition. The reason for using new condition costs is that if these materials were not available they would have to be requisitioned.

(c) Special Air-Lift - 3B(2)(d) - This should only be used when a special flight has to be set up to move either men and/or materials to a project site. Movement of men and/or materials by a scheduled flight will not be considered.

(3) Project estimates are intended to reflect the actual value of a completed project and not merely the actual direct costs (expenditure of funds).

E. PROJECT REQUEST - Guidelines for the preparation of a project request for approval are contained in APPENDIX F.

F. PROJECT NUMBER ASSIGNMENT - Project Numbers will either be assigned by the Engineering Office upon receipt of the project approval request or during the planning stage as reported on the Weekly Project Status Report.

G. CONTRACT ADMINISTRATION

(1) Although this subject is too voluminous to be treated in detail, listed below are some important phases of contract administration to be considered:

(a) INSPECTION - Provide sufficient inspection to insure that the contractor is complying with the contract plans and specifications. Work that is to be covered up (i.e. - water lines, reinforcement for concrete; septic tanks, etc.) should be accepted before the contractor covers that work. Water lines should be pressure tested before being covered.

(b) INSPECTION REPORTS - It is wise to prepare an inspection report for each inspection trip to the site. Such reports are a very useful tool in clarifying disputes with the contractor and as justification for the assessment of liquidated damages. Attachment 2 to this APPENDIX is a recommended inspection Report Format. The completed reports should remain in your office (it is not necessary to forward a copy to the Engineering Office, Saigon).

(c) FIELD CHANGES - Field office are authorized to make minor changes in the plans and specifications to meet field conditions as long as no cost is involved. If any changes require either additional funds or a reduction in contract cost then request the issuance of a MODIFICATION to the contract. When requesting a modification please submit a detailed description and cost breakdown so that a proper modification can be written.

(d) CONTRACT PAYMENTS - When processing requests for payment insure that the amount requested is in line with the progress of the work. It is preferable to pay for work in place; however, in those instances where the contractor has a large amount of material at the site but not in place we will pay for approximately 75% of the cost of that material. We are not authorized to pay for material that is either on order or enroute to the job site.

H. STATUS OF FUNDS

(1) Insure that each project is accomplished within the amount authorized. Should either additional approval or additional funds be required, submit the necessary paperwork as soon as this become evident.

(2) Funds that are allocated for projects are Fiscal Year funds only. This mean that no obligation documents may be issued after 30 June of the Fiscal Year in which these funds were allocated. This will affect projects in the following ways:

(a) IN-HOUSE PROJECTS - No requisition for material from stock, no local purchase of materials and no temporary hire labor after 30 June without requesting an allocation of new fiscal year funds.

(b) CONTRACTS - No contracts may be awarded after 30 June. However, modifications can be made to active contracts after 30 June against the previous Fiscal Year funds as long as there are sufficient funds remaining in the original project allocation. No GFM may be requitioned or purchased after 30 June without requesting an allocation of new Fiscal Year funds.

In view of the above, carefully analyze new project requests as the end of each fiscal year approaches. If it is too close to the end of the fiscal year to obligate funds then either postpone the project request till the next Fiscal Year or, if the project is extremely urgent, request project approval for the total value with only an allocation of funds that can be expended during the current Fiscal Year with a statement in the request that the remaining funds required will be requested the next Fiscal Year.

I. REPORTING - The proper and timely reporting on the status or progress of projects is essential for the operation of the Engineering Office, Saigon. Two types of reports are required from the Field Offices. These are:

(1) WEEKLY PROJECT STATUS REPORT - All projects in this category shall be reported, both approved & proposed. Details concerning this report are contained in APPENDIX G.

(2) ENGINEERING PROJECT COMPLETION FORM - Original and one copy for all projects in this category. Details concerning this report are contained in APPENDIX H.

2. Insure that the Project Number, when assigned, appear on all correspondence, plans, etc. Project Numbers MUST appear on all obligation documents (i.e.- requisitions, contracts, etc.).